

ABSTRACT OF THE DISCLOSURE

RADIATION DETECTOR USING A COMPOSITE MATERIAL AND
PROCESS FOR MANUFACTURING THIS DETECTOR



Detector of radiation using a composite material and process for manufacturing this detector.

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This detector comprises layers (6) of a semiconducting composite material comprising a host matrix made of a polymer and semiconducting-type guest particles dispersed through the host matrix, means (22-26) for creating an electric field in these layers and a stack of sheets (4) of a first material emitting particles by interaction with the radiation, the layers alternating with the sheets, each of the layers being associated with one of the sheets, the stack having opposite faces, each containing the edges of the sheets and layers, the means of creation of the field comprising, for each layer, a group of parallel and conductive tracks (22) which extend from one face to the other, parallel to this layer, and which are in contact with it.

Figure 4